

What is claimed is:

1. A wire electric discharge machine for machining a workpiece by electric discharge between the workpiece and a wire, comprising:

an upstream wire guide from which the wire is fed;

a downstream wire guide unit;

a wire turning unit having a first wire turning guide and a second wire turning guide, said first wire turning guide turning the wire from said upstream wire guide towards said second wire turning guide, and said second wire turning guide turning the wire turned by said first wire turning guide towards said downstream wire guide.

2. A wire electric discharge machine according to claim 1, wherein said wire turning unit has a plurality of sets of the first wire turning guides and the second wire turning guides, to be used selectively.

3. A wire electric discharge machine according to claim 1, wherein said wire turning unit is arranged rotatable around one of said upstream wire guide and said downstream wire guide and also fixable at predetermined rotational positions.

4. A wire electric discharge machine according to claim 1, wherein said wire turning unit is arranged detachable to be fixed at a predetermined rotational position with respect to one of said upstream wire guide and said downstream wire guide.

5. A wire electric discharge machine according to claim 1, further comprising automatic wire connecting means for automatically connecting the wire between said upstream wire guide and said downstream wire guide, and wire extending means for extending the connected wire to be engaged with said

first wire turning guide and said second wire turning guide by moving said upstream wire guide and said downstream wire guide relative to each other.

6. A wire electric discharge machine according to claim 5, wherein said automatic wire connecting means performs an automatic wire connection after aligning said upstream wire guide and said downstream wire guide such that projected positions of said upstream wire guide and said downstream wire guide substantially coincide with each other on a plane perpendicular to a feeding direction of the wire.

7. A wire electric discharge machine according to claim 1, wherein said upstream wire guide and said downstream wire guide are arranged movable relative to each other on a plane perpendicular to a feeding direction of the wire to be capable of performing a taper machining.

8. A wire electric discharge machine for machining a workpiece by electric discharge between the workpiece and a wire, comprising:

an upstream wire guide from which the wire is fed;

a downstream wire guide;

a wire turning unit for turning the wire from said upstream wire guide towards said downstream wire guide such that a projected position of said upstream wire guide is displaced from a projected position of said downstream wire guide on a plane perpendicular to a feeding direction of the wire.

9. A wire electric discharge machine according to claim 8, wherein said wire turning unit comprises at least two wire guides in the form of circular arc for turning the wire at approximately right angle.

10. A wire electric discharge machine according to claim 8, wherein said wire turning unit has a L-shape.

11. A wire electric discharge machine according to claim 8, wherein said wire turning member has a T-shape.

12. A wire electric discharge machine according to claim 8, further comprising automatic wire connecting means for automatically connecting the wire between said upstream wire guide and said downstream wire guide, and wire extending means for extending the connected wire along said wire turning unit by moving said upstream wire guide and said downstream wire guide relative to each other.

13. A wire electric discharge machine according to claim 12, wherein said automatic wire connecting means performs an automatic wire connection after aligning said upstream wire guide and said downstream wire guide such that projected positions of said upstream wire guide and said downstream wire guide substantially coincide with each other on a plane perpendicular to a feeding direction of the wire.

14. A wire electric discharge machine according to claim 8, wherein said upstream wire guide and said downstream wire guide are arranged movable relative to each other on a plane perpendicular to a feeding direction of the wire to be capable of performing a taper machining.